

ABSTRACT OF THE DISCLOSURE

A method for fabricating a semiconductor device comprises the steps of: forming a polysilicon film 26 on a silicon substrate 10; removing a natural oxide film 28 on the surface of the polysilicon film 26; forming a homogeneous chemical oxide film 30 on the surface of the polysilicon film 26 having the natural oxide film 28 removed; forming a silicon oxide film 32 to be used as a hard mask on the polysilicon film 26 with the chemical oxide film 30 formed on; and etching the polysilicon film 26 with the silicon oxide film 32 as a mask to form a gate electrode 16 of the polysilicon film 26.